



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
June 24, 2013

Regional Haze Rule

Basic Information

How far can you see?

Every year there are over 280 million visitors to our nation's most treasured parks and wilderness areas. Unfortunately, many visitors aren't able to see the spectacular vistas they expect. During much of the year a veil of white or brown haze hangs in the air blurring the view. Most of this haze is not natural. It is air pollution, carried by the wind often many hundreds of miles from where it originated.

In our nation's scenic areas, the visual range has been substantially reduced by air pollution. In eastern parks, average visual range has decreased from 90 miles to 15-25 miles. In the West, visual range has decreased from 140 miles to 35-90 miles.

What is haze?

Haze is caused when sunlight encounters tiny pollution particles in the air. Some light is absorbed by particles. Other light is scattered away before it reaches an observer. More pollutants mean more absorption and scattering of light, which reduce the clarity and color of what we see. Some types of particles such as sulfates, scatter more light, particularly during humid conditions.

Where does haze-forming pollution come from?

Air pollutants come from a variety of natural and manmade sources. Natural sources can include windblown dust, and soot from wildfires. Manmade sources can include motor vehicles, electric utility and industrial fuel burning, and manufacturing operations. Particulate matter pollution is the major cause of reduced visibility (haze) in parts of the United States, including many of our national parks. Some haze-causing particles are directly emitted to the air. Others are formed when gases emitted to the air form particles as they are carried many miles from the source of the pollutants.

What else can these pollutants do to you and the environment?

Some of the pollutants which form haze have also been linked to serious health problems and environmental damage. Exposure to very small particles in the air have been linked with increased respiratory illness, decreased lung function, and even premature death. In addition, particles such as nitrates and sulfates contribute to acid rain formation which makes lakes, rivers, and streams unsuitable for many fish, and erodes buildings, historical monuments, and paint on cars.

Basics of the Rule

EPA and other agencies have been monitoring visibility in national parks and wilderness areas since 1988. In 1999, the EPA announced the regional haze rule, a major effort to improve air quality in national parks and wilderness areas. The rule requires the states, in coordination with the EPA, the National Park Service, the Fish and Wildlife Service, the Forest Service, and other interested parties, to develop and implement air quality protection plans to reduce the pollution that causes visibility impairment. The goal of the regional haze rule is to return parks and wilderness areas (mandatory Class I areas) to natural visibility conditions by 2064.

Basic Requirements

Under the 1999 regional haze rule, states are required to set periodic goals for improving visibility in 156 parks and wilderness areas. As states work to reach these goals, they must develop regional haze implementation plans that contain enforceable measures and strategies for reducing visibility-impairing pollution. The two main control requirement areas are:

Best Available Retrofit Technology (BART):

- **BART Eligibility** : Applies to facilities in 26 source categories (including power plants) built between 1962 and 1977 that have the potential to emit more than 250 tons a year of visibility - impairing pollution.
- **Subject to BART** : Determine the sources impact on Class I areas based on modeling. If over a certain threshold, they are subject to BART and a BART analysis must be completed
- **BART Analysis** : Factors to consider: the cost of the controls; the impact of controls on energy usage or any non-air quality environmental impacts; the remaining useful life of the equipment to be controlled; any existing pollution controls already in place; and visibility improvement that would result from controlling the emissions.
- **BART Determination** : Determine what constitutes BART control measures and make them enforceable as part of the SIP. Control measures must be implemented within five years of the date of SIP approval.

Reasonable Progress and Long-Term Strategy Requirements:

States must set a reasonable progress goal (not enforceable) to meet the goal of natural visibility. States have to consider other sources of emissions, such as non-BART stationary sources, mobile sources, etc. to achieve the goal. States assess what control measures are reasonable based on four factors: costs of compliance; the time necessary for compliance, the energy and non-air quality environmental impacts, and the remaining useful life of sources. Other control measures must be made enforceable as part of the long-term strategy.

Other requirements include: consultation with federal land managers, consultation with other states, setting a uniform rate of progress, smoke management and visibility, and a five-year review in the form of a SIP revision.

For more information see EPA's Regional Haze website:
<http://www.epa.gov/airquality/visibility/program.html>